

IEP Tidal Wetlands Monitoring Project Work Team Meeting Notes

August 27, 2014

DWR – West Sacramento – Room 106

Meeting Attendants

DFW - Alice Low, Rosemary Hartman, Stacy Sherman, Dave Contreras, Trishelle Morris, Hildie Spautz, Michael Eakin, Dave Zezulak, Carol Atkins

USFWS – Joseph Kirsch, Lori Smith, Heather Swinney, Katherine Sun, Denise Barnard

USGS – Larry Brown, Tara Morgan

DWR – Ted Sommer, Kris Jones, Gardner Jones, Heather Fuller, Erik Loboschefskey, Gina Benigno, Joy Khamphanh, Louise Conrad, Pascale Goertler, Anitra Pawley, Chris Geach, Brett Harvey, Randy Mager

N/A – Bruce Herbold

SFEI – April Robinson

DSC – Daniel Huang, Chris Enright

DSP – Jennifer Bigman, Marina Brand

ESA – Ramona Swenson

UCD – Jim Hobbs

MWD – Shawn Acuna

SFCWA – Stephanie Fong

Delta Conservancy – Kristal Fadtke

CVRWQCB – Chris Foe

Topic: Introductions/Housekeeping

- Agenda item “Formation of monitoring sub teams” added for the meeting

Topic: Conceptual Model (CM) Summary

Conceptual models were reviewed and discussed one last time. The tier naming for each conceptual model could not be uniform and will be addressed within the text. An outline for each conceptual model is expected to be completed mid-September and a final text is expected in December. Text for the conceptual model will be reviewed and targeted for publication in SFEWS in 2015.

Group comments:

- Text should include how the DRERIP models were used to develop these new conceptual models
- A good starting point would be to contact the targeted journal publisher to see what they would want for the format of a peer-reviewed paper, which could change the conceptual model publication objectives
- Due to text similarity of the original DRERIP conceptual model text, one article can address how the DRERIP models were used to make new models. Any new conceptual models can be published
- It may be beneficial to have an independent panel of scientists to review the new conceptual models before the journal article peer review
- It may be beneficial to include a Mercury model and one may already exist

Tidal Wetland CM – Presented by Rosemary Hartman

Group comments:

- None

Tidal Wetland Seasonal CM - Presented by Rosemary Hartman

Group comments:

- Change the word “production” in Tier 5, because it doesn’t capture life history diversity

Tidal Exchange & Connectivity CM - Presented by Bruce Herbold

“Morphology” was added in Tier 3 and tiers were relabeled for consistency.

Group comments:

- Add “Dispersion” somewhere in the model

Tidal Wetland Evolution CM - Presented by Rosemary Hartman

Group comments:

- The wetland model is mature and developed from the Suisun Marsh evolution conceptual modelThe model is very simplified, detail needs to be added
 - Response: The model is simplified for comprehension

Food Web CM - Presented by Rosemary Hartman

Group comments:

- None

Delta smelt CM - Presented by Ted Sommer

Group comments:

- Some arrows/text may be greyed out to relate to tidal wetland

Salmon CM - Presented by Pascale Goertler

Group comments:

- If possible, try to simplify the model
- Salmon entrainment may be affected when tidal action restored on a site due to changing currents through the Delta

Aquatic Vegetation- Presented by Louise Conrad

Added a top tier “Tidal Wetland Responses” that links the Wetland evolution, food web, Chinook Salmon, and Delta Smelt models. The conceptual model and text will be sent to Lars Anderson for review.

Group comments:

- Model alterations may occur based on more literature reviews

- There will be a strong loop between “Wetland evolution” and “AV Growth”

Clam Model CM - Presented by Rosemary Hartman

“Contaminants” were added to the conceptual model

Group comments:

- Is the concern with contaminants whether it affects the clam population or being bio accumulated within the system
- Add the “Food web” model with “Phytoplankton” and “Zooplankton” as bullet points, instead of “Phytoplankton biomass” and “Zooplankton biomass”

Next steps for all conceptual models:

- Stephanie Fong, Bruce Herbold, and Carol Atkins will come up with a Toxicity conceptual model for tidal wetlands

Topic: Development Of Tidal Wetland Issues and Hypotheses

A group of tidal wetland hypothesis...premises were discussed. Another sub team will be formed to refine these tidal wetland premises. Anyone interested in joining this sub team should contact Alice Low.

Group comments:

- The word hypothesis should be reserved for specific, testable, and falsifiable statements
 - Sites can be considered before/after “experiments”
- Perhaps instead of trying to develop hypotheses, status and trends should be developed
- Decisions made by managers should be assessed when creating hypotheses
- The resolution of contextual data will need to be evaluated
- The premises should be organized by the conceptual model tiers
- Flux may need to be its own issue

Landscape Context Issue Statement

Group comments:

- Addresses year to year variability
- All issues should relate to the conceptual model
- Vegetation and wetland evolution are not well covered

Estuary-Wide Fish Restoration Goals

Group comments:

- The issue needs rewording since other stressors have contributed to the decline of at-risk fish species
- Remove time component of the issue statement
- The issue needs to be applicable to other wetlands

Physical Characteristics

Group comments:

- The issue statement is similar to the “Landscape Context” issue and needs to be defined at a finer scale
- Change words “Ecosystem Services” as it has certain connotations

Water Quality

Group comments:

- Try to incorporate the issue under “Landscape Context”
- Link the “hypothesis” to the conceptual models
- Carol Atkins will work on this issue

Methyl Mercury

Group comments:

- The issue should relate to toxicity for humans and birds, not fish
- Carol Atkins will work on this issue
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Primary and Secondary Production

Group comments:

- A second “hypothesis” for export should be added

Physical Fish Habitat

Group comments:

- Habitat extends beyond physical characteristics
- Perhaps other animals (ex. birds) should be included
- Fish use of native plants should be incorporated

Invasive Clams

Group comments:

- The “hypothesis” should focus on clam survival and growth on site

Topic: Formation Of Monitoring Sub Teams

(topic was not addressed due to time constraints)

Topic: Coordination With Other Work Groups

Update: The FRP attended a meeting with the California Wetland Monitoring Workgroup and will be incorporated at level 3 of the CRAM method.

The next Tidal Wetland PWT meeting will occur Oct. 1 from 9-12 at the DWR building in West Sacramento.